UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,129	09/10/2003	David G. Therrien	25452-013	3559

30623 7590 10/20/2009

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C
ONE FINANCIAL CENTER
BOSTON, MA 02111

EXAMINER	
ADAMS, CHARLES D	

ART UNIT	PAPER NUMBER
2164	

MAIL DATE	DELIVERY MODE
10/20/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/659,129	THERRIEN ET AL.	
	Examiner	Art Unit	
	CHARLES D. ADAMS	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-17 and 19-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-17 and 19-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on 10 June 2009, claim 17 is amended. Claims 1, 3-17, and 19-26 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 6, 17, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting et al. (US Patent 5,778,395), in view of Fujibayashi (US Pre-Grant Publication 2003/0131278) further in view of Zayas et al. (US Patent 6,560,615).

As to claim 1, Whiting et al. teaches a data protection system, comprising:

A fileserver configured to contain shares of data and to be connected with a repository (see 7:8-19 and 7:59-8:20),

The fileserver includes:

A filter driver operative to intercept input or output activity initiated by client file requests (see Whiting et al. 7:8-19 and 7:59-8:20)

a file system in communication with the filter driver and operative to store client files (see Whiting et al. 7:8-19);

The filter driver is configured to capture the snapshot at a specified time interval based on a backup frequency defined in a protection policy stored in the fileserver, wherein the protection policy is configured to be uniquely defined for each share of data on the fileserver (see Whiting et al. 5:2-8 and 7:17-24. Each node has its own share of data, wherein each node can set its own protection policy).

Whiting et al. does not explicitly teach wherein two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time;

Fujibayashi teaches wherein two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time (see paragraphs [0019]-[0020]. A local storage is connected to a remote storage, to which it mirrors the data it stores. The remote storage snapshots contain copies of the local storage snapshots. The storage location is configured to change over time, as volumes are added and replace other volumes. The number of copies is configured to change over time, as more volumes are added from 1 to N);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Whiting et al. by the teachings of Fujibayashi, because Fujibayashi provides Whiting et al. the benefit of locating data backups remotely, so that a customer can survive a disaster by restoring

data using backed up data mirrored in a remote location that was unaffected by the disaster (see Fujibayashi paragraph [0002]).

Whiting et al. and Fujibayashi do not teach and further configured to capture a snapshot of a set of the shares of data at a particular point in time and to maintain a list of modified and/or created files since a last snapshot occurred.

Zayas et al. teaches and further configured to capture a snapshot of a set of the shares of data at a particular point in time and to maintain a list of modified and/or created files since a last snapshot occurred (see 5:31-40 and 7:16-46);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Whiting et al. and Fujibayashi by the teaching of Zayas et al., because Zayas et al. provides the benefit of insertion and removal of entries in the MFL being performed by the storage system. When the first of a file's data and metadata bits are turned on, the storage system adds the file to the MFL. In this way, a file is added only once to the MFL (see 7:40-45) which greatly reduces the already low computer system overhead imposed by MFL maintenance (see 8:2-4).

As to claim 6, Whiting et al. as modified teaches: wherein the fileserver, based on the protection policy, is adapted to define repositories used for storage of files (see Whiting et al. 7:59-8:20), frequency of data backup (see Whiting et al. 5:2-8 and 33:49-51), how many replicas are maintained within each repository (see Whiting et al. 8:16-20), and how modifications to share data are maintained

(see Whiting et al. 7:59-8:20).

As to claim 17, Whiting et al. teaches a data protection system comprising:

A fileserver configured to contain shares of data and to be connected with a repository (see 7:8-19 and 7:59-8:20)

Said fileserver includes:

Filter driver means for intercepting input or output activity initiated by client file requests (see 7:8-19 and 7:59-8:20)

File system means in communication with the filter driver, the file system means for storing client files (see Whiting et al. 7:8-19);

Wherein said filter driver means is configured to capture the snapshot at a specified time interval based on a backup frequency defined in a protection policy stored in the file server, wherein the protection policy is configured to be uniquely defined each share of data on the file server (see Whiting et al. 5:2-8 and 7:17-24. Each node has its own share of data, wherein each node can set its own protection policy),

Whiting et al. does not teach wherein two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time;

Fujibayashi teaches wherein two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time (see paragraphs [0019]-[0020]);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Whiting et al. by the teachings of Fujibayashi, because Fujibayashi provides Whiting et al. the benefit of locating data backups remotely, so that a customer can survive a disaster by restoring data using backed up data mirrored in a remote location that was unaffected by the disaster (see Fujibayashi paragraph [0002]).

Whiting et al. and Fujibayashi do not teach and for capturing a snapshot of a set of the shares of data at a particular point in time and for maintaining a list of modified and/or created files since a last snapshot occurred

Zayas et al. teaches and for capturing a snapshot of a set of the shares of data at a particular point in time and for maintaining a list of modified and/or created files since a last snapshot occurred (see 5:31-40 and 7:16-46)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Whiting et al. and Fujibayashi by the teaching of Zayas et al., because Zayas et al. provides the benefit of insertion and removal of entries in the MFL being performed by the storage system. When the first of a file's data and metadata bits are turned on, the storage system adds the file to the MFL. In this way, a file is added only once to the MFL (see 7:40-45) which greatly reduces the already low computer system overhead imposed by MFL maintenance (see 8:2-4).

As to claim 21, Whiting et al. as modified teaches wherein, based on the protection policy, the fileserver is further configured to determine whether to

purge a file from a repository after the file has been deleted from a set of files (see Zayas et al. 7:11-15 and 8:5-14).

As to claim 22, Whiting et al. as modified teaches wherein, based on the protection policy, the fileserver is further configured to determine whether to keep a version history of a file in the set of files (see Whiting et al. 7:59-8:20 and 34:24-36).

As to claim 23, Whiting et al. as modified teaches wherein, based on the protection policy, the fileserver is further configured to determine a specified backup frequency for a repository (see Whiting et al. 5:2-8 and 33:49-51).

As to claim 24, Whiting et al. as modified teaches wherein, based on the protection policy, the fileserver is further configured to determine a specified type of compression for a file in the set of files (see Whiting et al. 8:21-40).

As to claim 25, Whiting et al. as modified teaches wherein, based on the protection policy, the fileserver is further configured to determine a specified caching level of a repository (see Whiting et al. 6:52-7:2).

4. Claims 3-5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting et al. (US Patent 5,778,395), in view of Fujibayashi (US Pre-Grant Publication 2003/0131278), in view of Zayas et al. (US Patent

6,560,615), and further in view of Belknap et al. (US Pre-Grant Publication 2003/0070001).

As to claim 3, Whiting et al. as modified teaches the system of claim 1.

Whiting et al. as modified does not teach a location cache configured to determine based on the protection policy which repository will be used to protect each share of data;

Belknap et al. teaches a location cache configured to determine based on the protection policy which repository will be used to protect each share of data (see paragraphs [0063]-[0064]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Whiting et al. by the teaching of Belknap et al., because Belknap et al. teaches the benefit of a common interface to media servers which conceals the media server specific device commands from applications which interact with the media servers included within the system (see paragraph [0006]).

Whiting et al. as modified teaches a location manager coupled to the location cache and operative to update the location cache when the fileserver protects a new share of data in a specific repository node (see Belknap et al. paragraph [0069]).

As to claim 4, Whiting et al. as modified teaches:

A local repository in communication with the fileserver and adapted for receiving files from the fileserver (see Whiting et al. 7:59-8:20. Whiting et al. transfers items from a local database to a remote one):

A local repository node API adapted for communicating with the fileserver API (see Whiting et al. 7:59-8:20);

The local repository is further adapted to receive replicated files from the fileserver (see Whiting et al. 7:59-8:20); and

The local repository includes a protection policy component operative to determine whether new versions of existing files should be compressed and whether older versions of exiting files should be maintained (see Whiting et al. 7:59-8:20 and 34:24-36).

As to claim 5, Whiting et al. as modified teaches:

A remote repository in communication with the local repository and adapted for receiving files from the local repository (see Belknap et al. paragraph [0066] and Whiting et al. 6:52-7:2):

The remote repository is further adapted to receive replicated files from the local repository (see Belknap et al. paragraph [0066] and Whiting et al. 6:52-7:2);

The remote repository includes a protection policy component operative to determine whether new versions of existing files should be compressed and whether older versions of existing files should be maintained (see Whiting et al. 7:59-8:20 and 34:24-36).

As to claim 20, Whiting et al. as modified teaches based in the protection policy, the fileserver is configured to determine the location of repositories a number of replicas of the files to be stored in each repository (see Whiting et al. 8:16-20).

Whiting et al. as modified does not teach wherein, based in the protection policy, the fileserver is configured to determine the location of repositories

Belknap et al. teaches wherein, based in the protection policy, the fileserver is configured to determine the location of repositories (see paragraphs [0063]-[0064])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Whiting et al. by the teaching of Belknap et al., because Belknap et al. teaches the benefit of a common interface to media servers which conceals the media server specific device commands from applications which interact with the media servers included within the system (see paragraph [0006]).

5. Claims 7-10, 13-16, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (US Patent 6,847,982) in view of Zayas et al. (US Patent 6,560,615), and further in view of Fujibayashi (US Pre-Grant Publication 2003/0131278).

As to claim 7, Parker et al. teaches a method for protecting data comprising:

Storing a version of a file within a set of files on a primary disk storage system (see 7:24-35);

capturing files based on a backup frequency defined in a protection policy (see Parker et al. 7:32-34 and 9:6-11);

Examining the protection policy associated with a set of files to determine where and how to protect files associated with the set of files (see Parker et al. 7:34-35 and 9:23); and

Replicating the version of the file to two or more repositories specified by the protection policy, wherein the repositories includes at least one of a local repository and a remote repository (see Parker et al. 7:44-59 and 9:23)

wherein the protection policy is configured to be uniquely defined for each set of files (see Parker et al. 7:24-35. The protection policy is uniquely defined for the set of files to be captured. Also see 8:32-9:31, which lists out several different groups of files, and explains how a user can set options for each group).

Parker et al. does not teach capturing a snapshot of the set of files at a particular point in time

Maintaining a list of modified and/or created files since last captured snapshot

Zayas et al. teaches capturing a snapshot of the set of files at a particular point in time (see Zayas et al. 7:16-46);

Maintaining a list of modified and/or created files since last captured snapshot (see Zayas et al. 5:31-40 and 7:16-46);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Parker et al. by the teaching of Zayas et al., because Zayas et al. provides Parker et al. the benefit of insertion and removal of entries in the MFL are performed by the storage system. When the first of a file's data and metadata bits are turned on, the storage system adds the file to the MFL. In this way, a file is added only once to the MFL (see 7:40-45) which greatly reduces the already low computer system overhead imposed by MFL maintenance (see 8:2-4).

Parker et al. and Zayas et al. do not teach:

wherein a storage location and a number of replicas of the version of the file can be configured to change over time.

Fujibayashi teaches wherein a storage location and a number of replicas of the version of the file can be configured to change over time (see paragraphs [0019]-[0020]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Parker et al. and Zayas et al. by the teachings of Fujibayashi, because Fujibayashi provides Parker et al. the benefit of locating data backups remotely, so that a customer can survive a disaster by restoring data using backed up data mirrored in a remote location that was unaffected by the disaster (see Fujibayashi paragraph [0002]).

As to claim 8, Parker et al. teachers wherein the file is configured to have at least one version (see Parker et al. 8:17-25 and Zayas et al. 6:65-7:15).

As to claim 9, Parker et al. teaches applying reverse delta compression to the versions of the file when a successive version of the file is stored in the repository (see Parker et al. 9:54-10:4).

As to claim 10, Parker et al. teaches wherein the step of applying reverse delta compression comprises:

Creating another version of the file, wherein the another version of the file is in a version of the file successive to the version of the file (see Parker et al. 9:54-10:4);

Replicating the another version of the file into the local repository and the remote repository (see Parker et al. 6:42-59 and 9:54-10:4);

Replacing the replicated version of the file in the local repository with a reverse delta compressed version representing a difference between the version of the file and the another version of the file and replicating (see Parker et al. 9:54-10:4);

Transmitting the reverse delta compressed version to the remote repository (see Parker et al. 6:42-59. A reverse delta can be sent with the data with the shipping container as well as a forward delta); and

In the remote repository, replacing the version of the file with the reverse delta compressed version to store the another version and the reverse delta

compressed version (see Parker et al. 6:42-59 and Zayas et al. 7:25-32. A reverse delta can be sent with the data with the shipping container as well as a forward delta).

As to claim 13, Parker et al. teaches wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining whether to keep a version history of a file in the set of files (see Zayas et al. 7:25-40 and Parker et al. 9:54-10:4).

As to claim 14, Parker et al. teaches wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining a specified backup frequency for a repository (see Parker et al. 8:17-25 and 9:6-11).

As to claim 15, Parker et al. teaches wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining a specified type of compression for a file in the set of files (see Parker et al. 6:42-59. A reverse delta can be chosen along with a forward delta to send to the library).

As to claim 16, Parker et al. teaches wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining a specified caching level of a repository (see Parker et al. 9:12-14. A storing (caching) frequency level is determined and chosen).

As to claim 26, Parker et al. as modified teaches wherein the fileserver further includes:

backup means for backing up the modified files into repositories identified in the protection policy based on the backup frequency (see Parker et al. 9:6-11);

Storage means for storing a latest version of a file in a repository where a prior version of the file is stored (see Parker et al. 9:54-10:4);

Means for determining a difference between the latest version of the file and the prior version of the file (see Parker et al. 9:54-10:4);

Means for applying reverse delta compression of the difference (see Parker et al. 9:54-10:4); and

Means for replacing the prior version of the file with the reverse delta compressed difference between the latest version and the prior version of the file (see Parker et al. 9:54-10:4).

6. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (US Patent 6,847,982) in view of Zayas et al. (US Patent 6,560,615), in view of Fujibayashi (US Pre-Grant Publication 2003/0131278) ,

and further in view of Santry et al. ("Deciding when to forget in the Elephant file system").

As to claim 11, Parker et al. as modified teaches wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining the location of repositories (see Parker et al. 10:36-55)

Parker et al. does not teach and a number of replicas of the files to be stored in each repository.

Santry et al. teaches a number of replicas of the files to be stored in each repository (see page 113, section 3.3. Only one version is kept).

Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to have further modified Parker et al. by the teaching of Santry et al., since Santry et al. teaches the benefit of old versions of files being automatically retained and storage is managed by the file system. Users specify retention policies for individual files, groups of files, or directories. The goal of Elephant is to allow users to retain important old versions of all of their files. User actions such as delete and file write are thus easily revocable by rolling back a file system, a directory, or an individual file to an earlier point in time (see page 111, last paragraph of section 1).

As to claim 12, Parker et al. as modified teaches the method of claim 7.

Parker et al. as modified does not teach wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining whether to purge a file from a repository after the file has been deleted from a set of files.

Santry et al. teaches wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

Determining whether to purge a file from a repository after the file has been deleted from a set of files (see page 113, section 3.5 and 115, section 4.2.3 (it is determined whether a file should be deleted)).

Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to have further modified Parker et al. by the teaching of Santry et al., since Santry et al. teaches the benefit of old versions of files being automatically retained and storage is managed by the file system. Users specify retention policies for individual files, groups of files, or directories. The goal of Elephant is to allow users to retain important old versions of all of their files. User actions such as delete and file write are thus easily revocable by rolling back a file system, a directory, or an individual file to an earlier point in time (see page 111, last paragraph of section 1).

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting et al. (US Patent 5,778,395), in view of Fujibayashi (US Pre-Grant

Publication 2003/0131278) , in view of Zayas et al. (US Patent 6,560,615), and further in view of Burns et al. ("Efficient Distributed Backup with Delta Compression").

As to claim 19, Whiting et al as modified teaches:

Backup said modified files into repositories identified in said protection policy based on said backup frequency (see Whiting et al. 5:2-8 and 33:49-51);

Store a latest version of a file in a repository where a prior version of said file is stored (see Whiting et al. 8:21-31);

Determine a difference between said latest version of said file and said prior version of said file (see Whiting et al. 8:21-31);

Whiting et al. as modified does not teach to apply reverse delta compression to said difference;

Burns et al. teaches to apply reverse delta compression to said difference (see Burns et al. section 4.2);

Whiting et al. as modified teaches replace said prior version of said file with said reverse delta compressed difference between said latest version and said prior version of said file (see Burns et al. section 4.2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Whiting et al. by the teaching of Burns et al., because Burns et al. teaches the benefit of using delta compression algorithms, which minimally encode a version of a file using only the

bytes that have changed, such that a backup system can compress the data sent to a server (see Abstract).

Response to Arguments

8. Applicant's arguments filed 10 June 2009 have been fully considered but they are not persuasive.

Applicants state that they "reiterate and incorporate herein by reference Applicants' arguments submitted on February 6, 2008 and November 21, 2008." In response to this argument, it is noted that the arguments of 6 February 2008 and 21 November 2008 were responded to in the Office Actions of 29 May 2009 and 17 February 2009, respectively.

Applicant argues that "since Whiting is not capable of storing multiple replicas of files in different locations, it fails to disclose that the number of replicas stored in each repository can be configured to change over time as well". In response to this argument, it is noted that Whiting et al. is not relied upon to teach this limitation. Fujibayashi is relied upon to teach this limitation.

Applicant then recited several advantages of the current invention. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "file servers that are the source of data to be backed up by having historical

versions of data stored into a local site repository and a peer remote repository;" "a filter driver that can, in real time, capture changes as they occur so that there is no need to "walk" file system;" maintaining "the history of all changes to a file over time, within the specific retention period and does not implement single instance storage;" having a "backup administrator to specify how many replicas of data need to be maintained in onsite and offsite repositories;" creating "for each share on each source fileserver, a protection policy … that includes backup frequency, retention/purging and version management rules;" and "having a backend collection of peer repositories distributed across multiple sites;") are not recited in the argued claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Fujibayashi "fails to cure the deficiencies of Whiting with regard to this element," adding that "Fujibayashi fails to address the problem of having storage location and number of replicas in each of its storage locations changing over time". In response to this argument, as noted in the Office Action, Fujibayashi teaches wherein a local snapshot repository and a remote snapshot repository, which contains a mirror of data of a corresponding local snapshot. These are different repositories. As time goes on, the local and remote repositories add volumes to contain more replicas of data. These volumes constitute different locations in memory (see paragraphs [0019]-[0020]). Therefore, as more volumes are added, the locations at which replicas are stored

changes. As such, Fujibayashi fully meets the claimed limitation “two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time”. The location and number of replicas in each repository increases as time increase. Thus, the location and number of replicas in each repository “can be configured to change over time”.

Applicant then states that “an advantage of the present invention is that it is configured to separate fileservers and repository nodes, where data is to be protected. The present invention maintains repository copies on separate disk drivers located on separate servers and transmits backup data continually between repositories." It is noted that these limitations do not exist in the independent claims.

Applicant argues that “the ability to change the storage location and the number of replicas in each repository cannot be changed over time”. In response to this argument, it is noted that Fujibayashi teaches this limitation, as noted above. It is also noted that Whiting et al. does not "teach away" from storing multiple copies of a file in multiple repositories. It simply teaches storing a single copy of a duplicate file in single backup means. Fujibayashi seeks to solve the problem wherein a disaster may occur at the backup means by providing multiple places to store a single file.

Applicant also argues that "Whiting fails to disclose that these created or modified files are replicas of a single file. In contrast, Whiting stores only a single copy of the file". In response to this argument, it is noted that a single copy of a file is a replica of the file. It is also noted that Whiting et al. is not relied upon for storing multiple copies of a file. As stated above, Fujibayashi teaches this limitation.

Applicant also argues that “It appears that Whiting includes a backup administrator that configured the backup system using administrator software function provided as part of Whiting’s product. The backup is then ran by a backup agent process for a network node that is selected by the backup administrator. However, Whiting fails to disclose that it has a protection policy uniquely defined for each share of data on the fileserver.” In response to this argument, it is noted that each node may schedule its own backups independently (5:6-8). It is also noted that each node has a share of data on the backup server (7:8-31). This, each share of data may have a unique backup schedule configured.

Applicant argues that Zayas fails to cure the deficiencies of Whiting. Applicant specifically argues that “the combination of all three references still fails to address having two or more repositories configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time as ell as the filter driver capturing the snapshot at

a specified time interval based on a backup frequency defined in a protection policy stored in the fileserver, wherein the protection policy uniquely defined for each share of data on the fileserver". It is noted that both of those arguments was responded to above.

Applicant then argues that Belknap et al. and Burns et al., in combination with Whiting et al., Fujibayashi, and Zayas et al., do not teach the subject matter of claim 1. In response to this argument, it is noted that neither Belknap et al. nor Burns et al. were relied upon to teach the subject matter of claim 1.

Applicants then argue that "on page 20, the Examiner provided an incomplete response to Applicants' arguments concerning the above combinations of Whiting, Fujibayashi, Zayas, Belknap, and Burns. Applicants respectfully request clarification of the Examiner's submission. Should the next office action be made final, Applicants respectfully petition withdrawal of its finality due to the incompleteness of the present office action." In response to this argument, the Examiner has reviewed page 20 of the Office Action of 17 February 2009, and is uncertain exactly which argument had an incomplete response. No arguments in regards to Belknap et al., Burns et al., or Fujibayashi can be found on page 20. In addition to this, all arguments on that page appear to have been responded to completely.

In regards to Parker et al., Applicant argues that the teachings of Parker et al. are "different than replicating the version of the file to two or more repositories specified by the protection policy, wherein the repositories include at least one of a local repository and a remote repository, wherein a storage location and a number of replicas of the version of the file can be configured to change over time." In response to this argument, it is noted that Parker et al. teaches a Vault to store captured files from a workstation / server. This is a "local repository." The Vault then sends the data, "at regular intervals", to an offsite Library system. This is a "remote repository" (see Parker et al. 7:44-59). It is noted that Fujibayashi is relied upon for the final limitation.

Applicant then argues that "Parker's policy is not uniquely defined for each set of files, contrary to the recitation of the amended claim 7." In response to this argument, it is noted that the status of claim 7, as submitted on 10 June 2009, is "previously presented". There are no amendments identified in the claims. It is also noted that Parker et al. teaches a uniquely defined protection policy for each set of files to be captured (see 7:24-35. A user may "determine those files that are critical to their particular business function and capture only those files that are important enough to be captured"). Also see 8:32-9:31, which lists out several different groups of files, and explains how a user can set options for each group.

Applicant argues that "The combination of Parker, Fujibayashi, and Zayas still fails to disclose all elements of claim 7 including, but not limited to," whereupon Applicant lists out the subject matter of claim 7. In response to this argument, it is noted that the combination of Parker et al., Fujibayashi, and Zayas et al., does teach those limitations, as recited in the office action above.

Applicant argues that "Santry also fails to cure the deficiencies of either Parker, Fujibayashi, Zayas, or their combination" in regards to claim 7. In response to this argument, it is noted that Santry et al. is not relied upon to teach the subject matter of claim 7.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES D. ADAMS whose telephone number is (571)272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D. A./
Examiner, Art Unit 2164

/Charles Rones/
Supervisory Patent Examiner, Art Unit 2164